

ABSTRACT OF THE DISCLOSURE

There are provided a decomposition apparatus by emission of a UV light which is irradiated from an excimer lamp, a decomposition method thereof and an excimer lamp and an excimer emission apparatus which may suitable be used for a decomposition apparatus and a decomposition method of an organic compound. The decomposition apparatus comprises an excimer lamp emitting UV light for decomposing the organic compound and a decomposition container provided with the excimer lamp for decomposing the organic compound in a liquid or a gas. In the decomposition apparatus, since the UV light irradiated from excimer lamp is emitted to the liquid or the gas, the organic compound in the liquid or the gas can be decomposed easily by the simple decomposition apparatus and method. The decomposition apparatus and method are effective to decompose the organic compound, such as dioxin (polychlorinated dibenzo-para-dioxin), PCB (polychlorinated biphenyl), trichloroethylene or the like, polluting the air or water to purify the environment.